THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ERIC W. SCHEIVE
and GARY W. ABBOTT

Appeal No. 97-4062
Application No. 08/590,049[1]

ON BRIEF

Before THOMAS, FLEMING, and BARRY, Administrative Patent Judges.

BARRY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the final rejection of claims 1-33. The appellants filed an amendment after final rejection on September 4, 1996, which was entered. We reverse.

[1] The application was filed on January 3, 1996. The application is a continuation of Application Serial No. 08/085,699, which was filed on June 30, 1993 and is now abandoned.

BACKGROUND

The invention at issue in this appeal relates to diagnostics for a computer. In prior computers, a central processing unit (CPU) retrieved diagnostic code stored in a basic input-output system (BIOS) read-only memory (ROM) attached to the CPU by an input/output (I/O) bus. A fault in the BIOS ROM or the I/O bus could prevent the CPU from retrieving the diagnostic code.

The invention is an interception and substitution circuit for a computer. The circuit intercepts a request from a CPU for diagnostic code stored in a BIOS ROM and sends the CPU substitute diagnostic code stored in local ROMs. When executed by the CPU, the substitute code determines whether the CPU and its host bus are functioning properly. Accordingly, diagnostic testing can be done on the computer even when a fault prevents the CPU from retrieving the code in the BIOS ROM.

Claim 1, which is representative for our purposes, follows:

> 1. In a computer system including a central processing unit ("CPU") capable of issuing a signal to a memory to retrieve a requested instruction from said memory when said CPU is booted, a circuit, transparent to said CPU, capable of localizing faults within said computer system, comprising:
>
> an interception and substitution circuit, coupled to said CPU, capable of intercepting said signal and providing an alternative instruction to said CPU in lieu of said requested instruction, said alternative instruction directing said CPU to perform a diagnostic check of said computer system, said CPU providing an indication of proper functioning of said computer system, said CPU requiring no hardware modifications to operate in conjunction with said interception and substitution circuit.

The reference relied on in rejecting the claims follows:

Warchol 5,327,435 July 5, 1994.

Claims 1-33 stand rejected under 35 U.S.C. § 103 as obvious over Warchol. Rather than repeat the arguments of the appellants or examiner in toto, we refer the reader to the brief and the answer for the respective details thereof.

OPINION

In reaching our decision in this appeal, we considered the subject matter on appeal and the rejection and evidence advanced by the examiner. We also considered the arguments of the appellants and examiner. After considering the entire record before us, we are persuaded that the examiner erred in rejecting claims 1-33. Accordingly, we reverse.

We begin our consideration of the obviousness of the claims by noting that in rejecting claims under § 103, the patent examiner bears the initial burden of establishing a prima facie case of obviousness. "A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Bell, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)). If the examiner fails to establish a prima facie case, an obviousness rejection will be reversed. In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596,

1598 (Fed. Cir. 1988)). With this in mind, we analyze the appellants' argument.

The appellants argue, "if presented with the problem addressed by the present invention and the teachings of Warchol, one of ordinary skill in the art would not arrive at the claimed invention." (Appeal Br. at 15.) In reply, the examiner concludes, "breaking down the process into two steps, intercepting and substituting, is just one obvious way of implementing the automatic test instructions taught by Warchol." (Examiner's Answer at 7.)

We agree with the appellants. Independent claim 1 specifies in pertinent part a CPU for "issuing a signal to a memory to retrieve a requested instruction from said memory when said CPU is booted, ... an interception and substitution circuit, coupled to said CPU, capable of intercepting said signal and providing an alternative instruction ... directing said CPU to perform a diagnostic check of said computer ...." Independent claims 11, 20, 28, and 31 specify similar limitations. In short, the claims recite intercepting a

request from a CPU for diagnostic instructions and providing alternative instructions to the CPU.

"Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." Para-Ordnance Mfg. v. SGS Importers Int'l, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995) (citing W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)). The mere fact that prior art may be modified in a manner suggested by an examiner does not make the modification obvious unless the prior art suggested the desirability thereof. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Here, the examiner erred by not identifying a sufficient suggestion to modify Warchol. The examiner admits that the reference "does not explicitly teach that [its] reset instruction is intercepted and substituted with an alternative

instruction to test the CPU." (Examiner's Answer at 6-7.) Rather than providing a line of reasoning to explain why intercepting Warchol's reset instruction and providing an alternative instruction to the CPU would have been desirable, he merely concludes, "breaking down the process into two steps, intercepting and substituting, is just one obvious way of implementing the automatic test instructions taught by Warchol." (Id. at 7). This conclusion impermissibly relies on the appellant's teachings or suggestions to modify the reference. For the foregoing reasons, the examiner has not established a prima facie case of obviousness. Therefore, we reverse the rejection of claims 1-33.

CONCLUSION

To summarize, the examiner's rejection of claims 1-33 under 35 U.S.C. § 103 is reversed.

REVERSED

JAMES D. THOMAS)

Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
LANCE LEONARD BARRY	)	
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APPEAL NO. 97-4062 - JUDGE BARRY
APPLICATION NO. 08/590,049

APJ BARRY

APJ FLEMING

APJ THOMAS

DECISION: **REVERSED**

Prepared by: Gloria Henderson

DRAFT TYPED: 04 May 01

FINAL TYPED:

Gloria, note the following instructions:

Do NOT change style of citations.

Do insert claim and reference(s).

Do check quotations.

Do proofread.